



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/196,338	11/19/1998	SEAN HANDEL	60021-302901	9014

29838 7590 07/14/2008  
OPPENHEIMER WOLFF & DONNELLY, LLP  
PLAZA VII, SUITE 3300  
45 SOUTH SEVENTH STREET  
MINNEAPOLIS, MN 55402-1609

EXAMINER
----------

DURAN, ARTHUR D

ART UNIT	PAPER NUMBER
----------	--------------

3622

MAIL DATE	DELIVERY MODE
-----------	---------------

07/14/2008

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 09/196,338	<b>Applicant(s)</b> HANDEL ET AL.	
	<b>Examiner</b> Arthur Duran	<b>Art Unit</b> 3622	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 5/27/08.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1, 10, 11 and 25-29 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1, 10, 11 and 25-29 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)            | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | Paper No(s)/Mail Date. _____                                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>5/27/08</u> .   | 6) <input type="checkbox"/> Other: _____                          |

### **DETAILED ACTION**

1. Claims 1, 10, 11, 25-29 have been examined.

#### ***Response to Amendment***

2. The Amendment filed on 5/27/08 is sufficient to overcome the prior rejection. A new reference has been added to the 35 USC 103 rejection.

#### ***Continued Examination Under 37 CFR 1.114***

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 5/27/08 has been entered.

#### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1, 10, 11, 25-29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bergh (6,112,186) in view of Sumita (5,907,836) in view of King (6,452,614) in view of O'Neill (5,987,440).

Bergh teaches a method and corresponding apparatus for reporting rating information comprising:

providing a database of user profiles (see at least col.3, lines 25-65); wherein a first subset of users have each submitted product/service rating data stored in the user profile (see at least col. 3, lines 45-67, col. 4, lines 15-20); receiving a request for rating information (see at least col. 6, lines 30-45, col. 14, lines 1-65, col. 33, lines 65-67); identifying a first set of user profiles of users from the first subset of users which have previously submitted rating data for the desired product/service (col. 6, lines 30-40, 50-60, col. 8, lines 20-30, col. 10, lines 10-15, col. 12, lines 20-25); mapping the personal information data in the first set of profiles along multiple dimensions to the requesting user profile (col. 8, line 40 – col. 9, line 67, col. 19, lines 40-67); filtering the first set of profiles to create a second set of a predetermined number of profiles which most closely map to the requesting user profile (col. 10, lines 35-45); determining whether the second set of profiles is sufficiently similar to the user profile to satisfy predetermined conformity requirements (col. 10, lines 45 – col. 11, line 65) . Bergh also teaches repeating filtering and determining if the second set of user profiles are not determined to be sufficiently similar, creating a set of rating information and reporting the rating information (col. 10, lines 40-50, col. 11, lines 5-15, col. 16, lines 25-60).

Bergh does not explicitly disclose repeating the filtering and determining steps.

Sumita teaches repeating the filtering and determining steps when the results are not sufficiently similar (col. 56, lines 1-10, 50-55).

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to have repeated the filtering and determining steps in Bergh as in Sumita. One would have been motivated to do this in order to generate enough ratings for the predetermined number of rating results of Bergh.

Additionally, Bergh also teaches recommending items to user upon request, “The user 44 can request the system to make artist recommendations at any time, and the system allows the user 44 to tailor their request based on a number of different factors” (col 27, lines 17-20).

Also, Bergh discloses that, “the profiles collected in those steps are not used to create and report a set of rating information to the requesting user about the product or service of interest as claimed”. Bergh discloses that, “By way of example, a new user 44 accesses the system via the World Wide Web. The system displays a welcome page, which allows the user 44 to create an alias to use when accessing the system” (col 26, lines 55-62), and,

“If the alias supplied by the user is not already in use, then the node verifies whatever demographic data the user supplied (step 708). In embodiments where the user is not prompted to supply any demographic data, this step may be skipped” (col 11, lines 5-15), and,

“The user 44 can request the system to make artist recommendations at any time, and the system allows the user 44 to tailor their request based on a number of different factors” (col 27, lines 17-20).

Hence, Bergh discloses that a user can be a new user, that the user demographic data may or may not be requested, and that the user can request artist recommendations at any time. Since Bergh's user can request artist recommendations at any time, Bergh's user can request item recommendations before or regardless of if the user has provided demographic information or item rating information.

Also, Bergh discloses that item rating information can be retrieved:

"Profiles for each item that has been rated by at least one user may also be stored in memory. Each item profile records how particular users have rated this particular item" (col 5, lines 1-3).

Also, Bergh discloses 1) identifying a first set of users who *previously* rated a product/service:

"Profiles for each item that has been rated by at least one user may also be stored in memory. Each item profile records how particular users have rated this particular item. Any data construct that associates ratings (10) given to the item with the user assigning the rating can be used. It is preferred is to provide item profiles as a sparse vector of n-tuples. Each n-tuple contains at least an identifier representing a particular user and an identifier representing the rating that user gave to the item, and it may contain other information, as described above in connection with user profiles. As with user profiles, item profiles may also be stored as an array of pointers. Item profiles may be created when the first rating is given to an item or when the item is first entered into the system. Alternatively, item profiles may be generated from the user profiles stored in memory, by determining, for each user, if

that user has rated the item and, if so, storing the rating and user information in the item's profile. . . For example, referring to FIG. 2, item profiled at a and user profile data may be stored as a matrix of values which provides user profile data when read "across," i.e. when rows of the matrix are accessed, and provides item profile data when read "down," i.e. when columns of the matrix are accessed. A data construct of this sort could be provided by storing a set of user n-tuples and a set of item niuples. In order to read a row of the matrix a specific user n-tuple is accessed and in order to read a column of the matrix a specific item n-tuple is selected" (col 5, lines 1-30).

Further, note from this passage, "Alternatively, item profiles may be generated from the user profiles stored in memory, by determining, for each user, if that user has rated the item and, if so, storing the rating and user information in the item's profile" (col 5, lines 13-17) and also from Figure 2 (Fig. 2), that each item profile contains a set of user profiles who have rated that item.

Also, Bergh discloses 2) filtering that first set of user profiles to create a second set of user profiles:

"The data object includes an interface for searching the physical memory. The interface accepts one or more criterion for screening data retrieved from the underlying physical memory. For example, the system may instruct the data object to retrieve all profiles having ratings for a particular item in excess of '5'" (col 6, lines 33-39).

Hence, Bergh discloses that users rate products or services, that there is as set of users consisting of the set of users who have rated a certain product, and that this

set of users who has rated a certain product can be further filtered by taking only the users with a product ranking greater than a certain rank.

Also, Bergh also discloses that a predetermined number of users in a set can be returned based upon different criteria and that a criteria for selection can be threshold value/L/"conformity requirement":

"The threshold value, L, can be set to any value which improves the predictive capability of the method. In general, the value of L will change depending on the method used to calculate the similarity factors, the item domain, and the size of the number of ratings that have been entered. In another embodiment, a predetermined number of users are selected from the users having a similarity factor better than L, e.g. the top twenty-five users" (col 10, lines 34-43).

Additionally, Bergh discloses product statistics along several dimensions (Fig. 2; col 6, lines 33-60). Note that records of who profiles an item are kept and also of the different characteristics (age, demographics, other items the user(s) rated) of the users who profile the items. Also, note that the relation between the user and user characteristics and the other user(s) and user characteristics and items available can be analyzed and searched in a variety of manners and with a variety of criteria.

Bergh discloses that rating information is returned from the second set of user profiles (col 10, lines 25-61).

Bergh discloses "product/service information from a content database including at least information about pricing from a variety of suppliers rated by the second set of user profiles" (col 27, line 65-col 28, line 2; col 27, lines 6-13). Note that product



information includes location of items in a retail establishment and that being able to purchase an item implies providing pricing information and that providing the category that an item belongs in or its performer, in the case of music, is also providing product information.

Bergh discloses multiple suppliers (col 28, lines 3-40). Note that since there are multiple retail establishments, different music from different genres, different websites, etc, that Bergh implies that there can be different stores, producers, content suppliers.

Sumita discloses attaining and developing user profiles (Fig. 2; Fig. 4) and that user profiles can be compared with items (Fig. 12) and that user profiles and preferences can be compared (Fig. 40).

Sumita discloses multiple suppliers (col 18, lines 64-68).

Sumita discloses filtering steps to attain a level of accuracy in the similarity set and/or a predetermined number of items in the similar set (col 4, lines 40-55; col 5, line 63-col 6, line 5). Note that Sumita utilizes and manipulates both a predetermined number in the return set and predetermined conformity requirement.

Sumita further discloses automatically repeating filtering steps to attain a level of accuracy in the similarity set (col 68, line 6-21; col. 56, lines 1-10, 50-55; col 28, lines 44-67).

The following is in regards to claims 25-29.

Additionally, Bergh discloses mapping of the personal information data based on pattern matching (col 6, line 33-col 7, line 7; col 4, lines 51-55; col 12, lines 15-31).

Bergh discloses that the user can have multiple profiles and that these profiles can be based on different domains or intentions of the user (col 3, lines 25-40) and also different interfaces dependent upon domains (col 28, lines 4-17).

Bergh does not explicitly disclose that the predetermined number and/or threshold value can be adjusted to affect the return set.

However, Bergh discloses that both variables of a predetermined number of users in a set and a threshold value/L/"conformity requirement" are involved in the determining of the return set:

"The threshold value, L, can be set to any value which improves the predictive capability of the method. In general, the value of L will change depending on the method used to calculate the similarity factors, the item domain, and the size of the number of ratings that have been entered. In another embodiment, a predetermined number of users are selected from the users having a similarity factor better than L, e.g. the top twenty-five users" (col 10, lines 34-43).

Additionally, note that Sumita utilizes and manipulates both a predetermined number in the return set and a threshold of similarity/predetermined conformity requirement in order to affect the return set:

"(43) According to the present invention, various retrieving conditions or the threshold of the similarities are dynamically changed whenever the retrieval is performed or in accordance with results of plural and successive retrievals. Thus, the retrieving conditions or the threshold of the similarities can be allowed to automatically follow the change in the contents of the article which is being supplied. As a result, an

appropriate article can always be presented to the user without a necessity for the user to change the specification of the retrieving conditions (col 5, line 63-col 6, line 5);

(522) (4) In accordance with the balance of the contraction with the user, the number of document to be retrieved is decreased to only the upper ranked documents” (col 56, liners 33-38);

(539) Hitherto, the outputs of the result of the retrieval have been decreased such that the results of the retrieval are arranged in the descending order in terms of the similarities to output upper ranked articles in a case where the number of outputs has been specified or to output documents of a type having the similarity greater than a specified threshold, which is the lower limit value of the similarity, in a case where the threshold has been specified (col 57, lines 42-50);

(540) In the case where the number of outputs is specified, only articles of a type having a great similarity and determined to be directly related are output even if a multiplicity of articles relating to the specified topic exist. In the case where the threshold is specified, only articles having a certain extent of relativity are output even if a small number of articles relating to the specified topic exists” (col 57, lines 50-58).

Sumita further discloses increasing or decreasing the predetermined number returned or the threshold of similarity/“conformity requirement” (Fig. 110-Fig. 113 and below) :

“FIG. 110 is a flow chart showing a process for decreasing the specified number of documents to be output in the apparatus according to the thirteenth embodiment;

FIG. 111 is a flow chart showing a process for increasing the specified number of documents to be output in the apparatus according to the thirteenth embodiment;

FIG. 112 is a flow chart showing a process for reducing the specified threshold of similarities in the apparatus according to the thirteenth embodiment;

FIG. 113 is a flow chart showing a process for enlarging the specified threshold of similarities in the apparatus according to the thirteenth embodiment” (col 13, lines 20-33).

Note that in these citations above concerning Fig. 110-Fig. 113 that the increasing or decreasing of the number returned or the threshold of similarity all occurs within the same thirteenth embodiment. Therefore, it would be obvious to one skilled in the art that either or both of the variables can be adjusted in order to affect the return set. One would have been motivated to do this in order to better attain desirable return sets in terms of number and similarity.

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made that Bergh’s predetermined number and/or threshold value/L/”conformity requirement” can be adjusted to affect the return set. One would have been motivated to do this in order to better attain desirable return sets in terms of number and similarity.

Hence, the combination of Bergh and Sumita renders obvious the Applicant’s claimed features such that the predetermined conformity requirement is automatically relaxed and the predetermined number of user profiles is selectively relaxed.

Also, On page 9 of the Applicant's Remarks dated 1/23/06, Applicant states, "Bergh teaches that multiple user profiles can be created with the disclosed system based on user inputs".

Hence, Applicant agrees that Bergh discloses the features of wherein the requesting user's profile is selected from a plurality of the requesting user's profiles, wherein each of the requesting user's profiles corresponds with a unique user persona including unique personal user information (Bergh, col 3, lines 25-31).

Applicant then states, in the Remarks dated 1/23/06, ". . .the reference does not show or suggest that the 'proclivities of the user' are automatically updated based on the use of the system".

However, Bergh does disclose that the proclivities of the user are automatically updated based on the use of the system.

Bergh discloses that information concerning a user can be requested from a user (col 3, lines 50-55; col 28, line 60-col 29, line 16).

Bergh further discloses that the preferences of a user are automatically updated based on the use of the system and that the personal information data includes direct user inputs and information based on use of the product/service rating information:

"(8) Ratings can be inferred by the system from the user's usage pattern. For example, the system may monitor how long the user views a particular Web page and store in that user's profile an indication that the user likes the page, assuming that the longer the user views the page, the more the user likes the page. Alternatively, a system may monitor the user's actions to determine a

rating of a particular item for the user. For example, the system may infer that a user likes an item which the user mails to many people and enter in the user's profile an indication that the user likes that item. More than one aspect of user behavior may be monitored in order to infer ratings for that user, and in some embodiments, the system may have a higher confidence factor for a rating which it inferred by monitoring multiple aspects of user behavior. Confidence factors are discussed in more detail below (col 4, lines 50-67).

In still other embodiments, the system may acquire a number of ratings by monitoring the user's environment. For example, the system may assume that Web sites for which the user has created "bookmarks" are liked by that user and may use those sites as initial entries in the user's profile. One embodiment uses all of the methods described above and allows the user to select the particular method they wish to employ (col 4, lines 25-34).

(23) Whenever a rating is received from a user or is inferred by the system from that user's behavior, the profile of that user may be updated as well as the profile of the item rated. Profile updates may be stored in a temporary memory location and entered at a convenient time or profiles may be updated whenever a new rating is entered by or inferred for that user (col 7, line 65-col 8, line 5).

(80) In a second embodiment, the communication which is to be targeted to selected users may seek out its own receptive users based on information stored

in the user profiles and ratings given to the communication by users of the system. In this embodiment, the communication initially selects a set of users to which it presents itself. The initial selection of users may be done randomly, or the communication may be "preseeded" with a user profile which is its initial target. (col 18, lines 27-35)

(4) Each user profile associates items with the ratings given to those items by the user. Each user profile may also store information in addition to the user's rating. In one embodiment, the user profile stores information about the user, e.g. name, address, or age. In another embodiment, the user profile stores information about the rating, such as the time and date the user entered the rating for the item. User profiles can be any data construct that facilitates these associations, such as an array, although it is preferred to provide user profiles as sparse vectors of n-tuples. Each n-tuple contains at least an identifier representing the rated item and an identifier representing the rating that the user gave to the item, and may include any number of additional pieces of information regarding the item, the rating, or both. Some of the additional pieces of information stored in a user profile may be calculated based on other information in the profile, for example, an average rating for a particular selection of items (e.g., heavy metal albums) may be calculated and stored in the user's profile. In some embodiments, the profiles are provided as ordered n-tuples. Alternatively, a user profile may be provided as an array of pointers; each pointer is associated with an item rated

by the user and points to the rating and information associated with the rating” (col 3, line 47-col 4, line 5).

Notice in the above citations from Bergh that Bergh discloses a user entering demographic/personal information, that a profile can be updated for a user based on direct user ratings, that a profile can be updated for a user based on inferences concerning user behavior/actions, that user can be targeted based on user profile.

Hence, the combination of Bergh and Sumita renders obvious the feature of the Applicant's claims.

Additionally, within the same thirteenth embodiment of Sumita, Sumita discloses increasing or decreasing the predetermined number returned or the threshold of similarity/“conformity requirement” (Figures 110-113; col 54, line 40-col 60, line 56).

And, Sumita discloses that various retrieving conditions can be changed and that any of the retrieving conditions can be changed which includes both the threshold of the similarity and the number of outputs:

“(43) According to the present invention, various retrieving conditions or the threshold of the similarities are dynamically changed whenever the retrieval is performed or in accordance with results of plural and successive retrievals. Thus, the retrieving conditions or the threshold of the similarities can be allowed to automatically follow the change in the contents of the article which is being supplied. As a result, an appropriate article can always be presented to the user without a necessity for the user to change the specification of the retrieving conditions (col 5, line 63-col 6, line 5);



(513). . .The retrieving condition changing portion 160 examines the hysteresis of the retrieval stored in the retrieval result hysteresis storage portion 159 to change the retrieving conditions (the threshold of the similarity, the number of outputs, topics, data bases to be retrieved, the display format and the like), if necessary (col 55, lines 49-63).

And, Sumita discloses varying more than one retrieving conditions at the same time (col 57, lines 3-10). Note in this citation that Sumita discloses that several of the retrieving conditions can be changed or varied at the same time.

Therefore, it would be obvious to one skilled in the art that the several retrieving conditions that can be changed at the same time can be the number returned and the threshold value. One would have been motivated to do this in order to better attain desirable return sets.

Additionally, Sumita discloses that at least one of predetermined number and threshold can be utilized as conditions for retrieval and that at least one of the threshold and the retrieval conditions can be changed based on the return set:

“[Claim 8]. An information filtering apparatus, comprising:  
means for receiving articles from information sources;  
means for storing a retrieval condition;  
means for calculating similarities between the retrieval condition stored in said storing means and the articles received by said receiving means;  
output means for sorting the articles received by said receiving means based

on the similarities and for extracting at least one of 1) a predetermined number of the articles selected from articles having a highest similarity and 2) articles which have the similarities greater than a predetermined threshold; and means for changing at least one of 1) the predetermined threshold and 2) the retrieval conditions based on a total number of the articles extracted by said output means”.

And, Sumita discloses that both the predetermined threshold and/or the number of articles output/retrieved can be retrieval conditions:

“(513). . . The results of retrieval are stored in the retrieval result hysteresis storage portion 159. The retrieving condition changing portion 160 examines the hysteresis of the retrieval stored in the retrieval result hysteresis storage portion 159 to change the retrieving conditions (the threshold of the similarity, the number of outputs, topics, data bases to be retrieved, the display format and the like), if necessary” (col 55, lines 49-63).

Hence, because the claims language uses the phrase “at least one of. . .”, all of the terms/features following can be combined at the same time. And, the claim language further states that predetermined threshold and retrieval conditions can be changed. And, the Specification states that predetermined threshold and/or the number of articles output/retrieved can be retrieval conditions. Hence, the Sumita claim can be interpreted such that predetermined threshold and the retrieval condition can be changed at the same time where the retrieval condition is number of

outputs/number of articles. Hence, Sumita discloses that the predetermined threshold and the number of outputs/number of articles can be changed at the same time.

Additionally, Bergh discloses multiple profiles/personas for a user (col 3, lines 25-47).

Bergh does not explicitly disclose wherein each user profile comprises at least one unique persona having a set of personal information and wherein the personal information includes a profile field and a profile restriction such that the profile field contains detailed personal information and the profile restriction contains rules in the form of a pattern to restrict the rules to certain uses.

However, King (6,452,614) discloses these features (King, claims 1-6).

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to add King's providing at least one or multiple profiles for a user where the profile has specific rules and restrictions. One would have been motivated to do this in order to better present information to a user and to better allow appropriate user activity/actions.

Additionally, the combination of the prior art renders obvious, "a plurality of user records, corresponding to a plurality of users, wherein each user record is associated with a plurality of user personas stored in the database and each user persona is associated with a plurality of user profiles. . . wherein each of the user profiles for each user record is grouped into the user personas, each being related to a unique, useful context such that at least one of the user profiles is grouped in at least two user personas."

Bergh discloses multiple profiles for a user and that there can be multiple profiles for a domain for a user or that there can be multiple domains for a profile of a user (col 3, lines 25-47; col 4, lines 5-15). Bergh does not explicitly disclose that a single user has different personas. However, in Bergh, note that there is a single user account. Then, that user account can have different profiles defined for that user account. And, there can be multiple domains which can each have profile information associated with that domain. Hence, Bergh discloses a user who has different domains and where each domain has profile information associated with that particular domain. And, Bergh discloses that a single user has multiple profiles associated with that user based on different use proclivities. For example, Bergh restaurant example with fish where there is a profile for one set of days of the week and a different profile for a different set of the days of week, renders obvious a work profile and home profile.

Also, note that King further discloses different personas for a user where each persona has different restrictions and capabilities (Figure 1, item 32, "Master Persona", "Bill Payer", "House Buyer"; Figures 1-3; Figure 4, 5; throughout the King Specification).

Hence, the combination of the prior art renders obvious these features. Therefore, it would be obvious that Bergh's multiple domains and profiles for a single user can function as personas and profiles for the user.

Additionally, the features concerning the restriction and rules features were read in light of Applicant's Specification Paragraphs ([168, 170]). And, King does more than limit what data the user can receive. King's personas, rules, and restriction also limit

and restrict the communication capabilities of the user based on the personas of the user (King, Figure 5; claims 2, 5; col 4, lines 2-10; col 4, lines 45-56; col 8, lines 35-54; Tables 1 and 2). And, notice that these citations from King renders obvious the features of the claims when interpreted in light of Applicant's Specification (particularly Applicant's [168, 170]). Notice that King limits the user to certain communications and specific contacts based on a certain persona the same way that the Applicant limits the user to using a specific travel agent.

Also, Bergh discloses that different profiles have different rules and restrictions (col 3, lines 25-45). For example, Bergh discloses a restaurant profile for Saturday thru Thursday with one set of rules and a different restaurant profile for Fridays with a different set of rules. And, each of these profiles has different rules in the form of a pattern that restricts the rules to certain uses.

Also, the following is in regards to the features regarding grouping users profile into groups. These features were read in light of Applicants Specification ([169] and Figure 12). And, Bergh (col 3, lines 25-47 )and King (Figure 5; claims 2, 5; col 4, lines 2-10; col 4, lines 45-56; col 8, lines 35-54; Tables 1 and 2) render obvious these features.

Also, the following is in regards to the features concerning mapping personal information data along multiple dimensions. Bergh discloses these features (Figure 3; Figure 3, 'Cluster Weight', 'Feature Weight'). Also, Bergh's ratings are based on product/service ratings (Figure 2; col 26, line 55-col 28, line 47).

Also, the following is in regards to the features concerning filtering and determining similarity of user profiles. Applicant states that the prior art does not “address the similarity operations which are being performed on the personal information data contained within the user profile”. However, Bergh discloses using personal information to determine similarity (col 3, lines 25-45; col 6, lines 50-60; Figures 1, 3). On page 14, Applicant further states that the prior art does not disclose repeating of the filtering is not done automatically is the results are not sufficiently similar. However, Sumit discloses these features (col 5, line 62-col 6, line 5).

Also, the following is in regards to the features regarding dependent claims 25-29. Pages 8-11 of the Office Action dated 11/2/07 (and also the above rejection where stated "The following is in regards to claims 25-29" ) addressed these dependent claim features. Examiner notes that the Applicant's pattern matching is related to key word searches and similarities. Bergh discloses these features (col 19, lines 33-50). Sumita further discloses these features (Figure 67; col 11, lines 1-5; col 16, lines 21-30.) Also, Applicant's intention-centric interface is interpreted in light of Applicant's Specification ([171, 172]). And, Bergh (col 3, lines 25-45) and King (Figures 1-3) render obvious an intention-centric interface. Note that these interfaces or profiles are setup based on the intention and goals of the user.

Additionally, Examiner notes the Interview dated 6/30/08. The Interview Summary states, “Applicant submitted a figure which is attached. The attached talking point figure demonstrates the structure of step a) of claim 1. Applicant also clarified that

Figures 12 and 13 of the Specification and pages 71-75 give good examples of the features of step a) of claim 1.”

As noted in the Interview please note the Applicant submitted Figure labeled "Talking Point Drawing Re. 09/196,338" and dated 6/30/08. The Applicant's claim 1 was read in light of Figures 12 and 13 of the Specification, pages 71-75 of the Specification, and in light of the "Talking Point Drawing".

Examiner notes that King discloses different personas for a single user where each persona has different restrictions and capabilities (Figure 1, item 32, "Master Persona", "Bill Payer", "House Buyer"; Figures 1-3; Figure 4, 5; throughout the King Specification). Note that in King that these different personas are all for the same user.

And, the one user of King matches up with the one user of Applicant's Figure 12 and Talking Point figures. And, the different personas of King (Fig. 1, Master Persona, House Buyer, Father of Fritz, Bill Payer) are each different personas for the same user. Hence, the different personas of King match up with the different personas of the Applicant's Figure 12 and Talking Point figures. And, in Applicant's claim/Figure 12/Talking Point Figure note that some profile items are unique to a persona while other profile items are shared between different personas. And, in King, some of the profile items are unique to a persona while other profile items are shared between personas. For example, in King Fig. 2 the Realtor item is unique to the House Buyer Persona of Fig. 2 while the Wife item is shared between House Buyer persona and the Father of Fritz Persona. Hence, in King each profile item can be unique to a Persona or it can be shared between Personas. Hence, King discloses this some profile item sharing and

some profile item being unique feature of the Applicant's claim 1. Also, note in King Figure 5 that who is communicated with (Fig. 5, item 21), what information can be seen or shared (Fig. 5, item 22), and the communication capability (Fig. 5, item 23; cols 5-7, Tables 1 and 2) can be defined for each of the different Personas.

And, in Applicant's Specification ([168,170]), note that the profiles/profile objects have different rules/restrictions. And, in King, each Persona has different rules/restrictions that are associated with the profile items (claims 1, 3.)

King does not explicitly disclose that the Profile/information items are objects.

However, Bergh discloses that different profiles have different rules and restrictions (col 3, lines 25-45). For example, Bergh discloses a restaurant profile for Saturday thru Thursday with one set of rules and a different restaurant profile for Fridays with a different set of rules. And, each of these profiles has different rules in the form of a pattern that restricts the rules to certain uses. And, Bergh discloses (col 5, line 65-col 6, line 35).

And, O'Neill discloses different users with different personas and rules associated with profile items/assets (Figures 28-33). O'Neill further discloses utilizing objects (Fig. 10). And, O'Neill discloses rules for each profile item/asset object (claims 13, 14, 29; col 6, lines 24-64; col 35, lines 15-30; col 52, lines 40-45). O'Neill further discloses that "It is possible to make the rules as simple or as complex as needed" (col 19, lines 60-61). O'Neill further discloses if and condition based rules (claim 33.)

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to add King's informational structure and O'Neill's



profile item/asset objects with associated rules to Bergh's user profiles, item profiles, recommendation making and object oriented approach. One would have been motivated to do this in order to better organize data and privileges in order to better make recommendations.

### ***Response to Arguments***

4. Applicant's arguments with respect to claims 1, 10, 11, 25-29 have been considered but are moot in view of the ground of rejection above. Please see the addition of the O'Neill reference above. Also, please note the following.

Examiner notes the Interview dated 6/30/08. The Interview Summary states, "Applicant submitted a figure which is attached. The attached talking point figure demonstrates the structure of step a) of claim 1. Applicant also clarified that Figures 12 and 13 of the Specification and pages 71-75 give good examples of the features of step a) of claim 1."

As noted in the Interview please note the Applicant submitted Figure labeled "Talking Point Drawing Re. 09/196,338" and dated 6/30/08. The Applicant's claim 1 was read in light of Figures 12 and 13 of the Specification, pages 71-75 of the Specification, and in light of the "Talking Point Drawing".

Examiner notes that King discloses different personas for a single user where each persona has different restrictions and capabilities (Figure 1, item 32, "Master Persona", "Bill Payer", "House Buyer"; Figures 1-3; Figure 4, 5; throughout the King Specification). Note that in King that these different personas are all for the same user.

And, the one user of King matches up with the one user of Applicant's Figure 12 and Talking Point figures. And, the different personas of King (Fig. 1, Master Persona, House Buyer, Father of Fritz, Bill Payer) are each different personas for the same user. Hence, the different personas of King match up with the different personas of the Applicant's Figure 12 and Talking Point figures. And, in Applicant's claim/Figure 12/Talking Point Figure note that some profile items are unique to a persona while other profile items are shared between different personas. And, in King, some of the profile items are unique to a persona while other profile items are shared between personas. For example, in King Fig. 2 the Realtor item is unique to the House Buyer Persona of Fig. 2 while the Wife item is shared between House Buyer persona and the Father of Fritz Persona. Hence, in King each profile item can be unique to a Persona or it can be shared between Personas. Hence, King discloses this some profile item sharing and some profile item being unique feature of the Applicant's claim 1. Also, note in King Figure 5 that who is communicated with (Fig. 5, item 21), what information can be seen or shared (Fig. 5, item 22), and the communication capability (Fig. 5, item 23; cols 5-7, Tables 1 and 2) can be defined for each of the different Personas.

And, in Applicant's Specification ([168,170]), note that the profiles/profile objects have different rules/restrictions. And, in King, each Persona has different rules/restrictions that are associated with the profile items (claims 1, 3.)

King does not explicitly disclose that the Profile/information items are objects.

However, Bergh discloses that different profiles have different rules and restrictions (col 3, lines 25-45). For example, Bergh discloses a restaurant profile for

Saturday thru Thursday with one set of rules and a different restaurant profile for Fridays with a different set of rules. And, each of these profiles has different rules in the form of a pattern that restricts the rules to certain uses. And, Bergh discloses (col 5, line 65-col 6, line 35).

And, O'Neill discloses different users with different personas and rules associated with profile items/assets (Figures 28-33). O'Neill further discloses utilizing objects (Fig. 10). And, O'Neill discloses rules for each profile item/asset object (claims 13, 14, 29; col 6, lines 24-64; col 35, lines 15-30; col 52, lines 40-45). O'Neill further discloses that "It is possible to make the rules as simple or as complex as needed" (col 19, lines 60-61). O'Neill further discloses if and condition based rules (claim 33.)

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to add King's informational structure and O'Neill's profile item/asset objects with associated rules to Bergh's user profiles, item profiles, recommendation making and object oriented approach. One would have been motivated to do this in order to better organize data and privileges in order to better make recommendations.

### ***Conclusion***

The following prior art made of record and not relied upon is considered pertinent to applicant's disclosure:

a) Rose (6,202,058) discloses different personas for a user with profile information associated with each persona (col 6, lines 35-60).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Arthur Duran whose telephone number is (571)272-6718. The examiner can normally be reached on Mon- Fri, 8:00-4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Eric Stamber can be reached on (571) 272-6724. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Arthur Duran  
Primary Examiner  
Art Unit 3622

/Arthur Duran/  
Primary Examiner, Art Unit 3622  
7/10/2008